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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/048,026 | 03/26/1998 | KANJI UCHINO | 826.1482/JDH | 3866 |

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EXAMINER

PAULA, CESAR B

ART UNIT PAPER NUMBER

2176

DATE MAILED: 07/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/048,026

Applicant(s)

UCHINO ET AL.

Examiner

CESAR B PAULA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the response filed on 5/15/02.

This action is made Final.

2. In the amendment, claims 1-31 are pending in the case. Claims 1, 3, 8-9, 11, 16-19, and 30-31 are independent claims.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d), and based on application # 09-242247 filed in Japan on 9/8/1997, which papers have been placed of record in the file.

Drawings

4. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-31 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan (Pat. # 5,933,599, 8/3/1999, filed on 7/17/1995), in view of Knowles et al, hereinafter Knowles

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(Pat. # 5,905,863, 5/18/1999, filed on 5/30/1997), and further in view of Bailey et al, hereinafter Bailey (Pat. # 5,845,084, 11/10/1998, filed on 5/1/1996)

Regarding independent claim 1, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *determining for each document in the set, which of the documents is referenced*. Knowles teaches “the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads” (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the “filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another” (col. 3, lines 60-64).

Moreover, Nolan discloses the extraction and display of the subject—keywords-- of email documents posted in a bulletin board directory-- *a document group keyword extraction device to extract a keyword contained in a document* (col. 2, lines 30-67, and fig.9-10).

Furthermore, Nolan the extraction and display of the subject—title keywords-- of email documents posted in a bulletin board directory. Nolan fails to explicitly disclose *display keywords extracted from the document corresponding to the title...the title and the keywords displayed in areas related to each other*. Bailey teaches a preview pane for displaying a message’s extracted keywords (col. 2, lines 44-67, and FIG. 3). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of

Nolan, Knowles, and Bailey, because Bailey teaches above the previewing of messages without having to open them in a separate window.

Claim 2 is directed towards an apparatus for displaying a group of documents as recited in the rejection of claim 1, and is therefore rejected on the same basis.

Regarding independent claim 3, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *determining for each document in the set, which of the documents is referenced*. Knowles teaches “the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads” (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the “filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another” (col. 3, lines 60-64).

Moreover, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *a document attribute analysis device to extract document attribute information*. Knowles teaches “the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads...statistical information retrieval techniques are used in conjunction with textual material obtained by filtering of messages” (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to

have combined the teachings of Nolan, and Knowles, because Knowles teaches the “filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another” (col. 3, lines 60-64).

Furthermore, Nolan teaches the display of “bulletin board navigator” (col. 11, lines 43-67, and FIG. 9)-- *a document group structure display device to display cross-references in each group of documents*

Regarding claim 4, which depends on claim 3, Nolan teaches the display of “bulletin board navigator”--*The apparatus....displays the cross-references in each group of documents in a tree structure* (col. 11, lines 43-67, and FIG. 9, 902, FIG. 10, 1004).

Regarding claim 5, which depends on claim 3, Nolan discloses the display of a tree directory showing different categories of documents, and a plurality of topics extracted from published bulletin board documents (fig. 9-10, and col.2, lines 30-67)-- *The apparatus.....said document group structure display device further displays a plurality of topics*

Regarding claim 6, which depends on claim 5, Nolan discloses the display of a tree directory showing different categories of documents, and a plurality of topics extracted from published bulletin board documents in the same color (fig. 9-10, and col.2, lines 30-67)--*The apparatus.....said document group structure display device displays each topic and a relevant node*

Regarding claim 7, which depends on claim 3, Nolan teaches the display of “bulletin board navigator” (col. 11, lines 43-67, and FIG. 9, 208)--*The apparatus.....said document group structure display device displays with enhancement a node corresponding to a document*

Regarding independent claim 8, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67)--*a document group analysis device to classify a plurality of documents forming a set of documents into at least one group of cross-referenced documents* Nolan fails to explicitly disclose *determining for each document in the set, which of the documents is referenced*. Knowles teaches “the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads” (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the “filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another” (col. 3, lines 60-64).

Moreover, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *a topic analysis device to further classify each group of cross-referenced documents based on topics extracted from each document, and a topic keyword extraction device*. Knowles teaches “the filtered potential parent messages....are then passed along...The child, or reply, message...is also processed” (col. 7, lines 56-67, and col. 8, lines 1-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Nolan, and Knowles, because Knowles teaches the “filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another” (col. 3, lines 60-64).

Furthermore, Nolan teaches the display of “bulletin board navigator” (col. 11, lines 43-67, and FIG. 9)--*a topic keyword display device for displayinga relevant title and a keyword extracted—*

Claims 9-11, 12, 13-18 are directed towards a relevant document display method for implementing the apparatus found in claim 1-3, 4-8, 1, and 3 respectively, and therefore are similarly rejected.

Regarding independent claim 19, Nolan teaches “bulletin board navigator” where messages submitted earlier are referenced to by messages submitted later (col. 11, lines 43-67, and FIG. 9)--*displaying on a display device a group of documents containing cross-referenced message document....of a forum and a message board...a document contributed earlier is referenced by documents contributed afterwards.*

Moreover, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67). Nolan fails to explicitly disclose *a contents estimation device to estimate topic patterns of the cross-referenced message documents.....plural types of display indexes corresponding to the topic patterns.* Knowles teaches “the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads...statistical information retrieval techniques are used in conjunction with textual material obtained by filtering of messages...identifying when a message was a response to another” (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of

Nolan, and Knowles, because Knowles teaches the “filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another” (col. 3, lines 60-64).

Moreover, Nolan discloses the retrieval from a database and display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col.2, lines 30-67)--*an input device to input a retrieval request and retrieval engine device to retrieve a document in the document database.*

Furthermore, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67) -- *a view generation device to generate plural types of views... ..*

Regarding claim 20, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus....view generation means allows a user to easily understand an entire structure of reference.*

Regarding claim 21, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.... displays a reference tree structure of displayed documents.*

Regarding claim 22, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, in a tree structure, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.... displays a reference tree structure of displayed documents... ..containing user input keyword.*

Regarding claim 23, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, in an easy-to-understand tree format, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus....so that a user to easily understand an entire structure of reference...pattern estimated about the documents by said contents estimation means.*

Regarding claim 24, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, in a calendar format, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.....device displays in a calendar format.....*

Regarding claim 25, which depends on claim 19, Nolan discloses the document intensity display—208—for displaying a specific topic pattern in the bulletin board (fig. 9-10, and col. 11, lines 43-67)--*The apparatus....device displays, at a high intensity level, a specified topic pattern.*

Regarding claim 26, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents, related to a question and answer topic so as to be understood by a user, where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.....retrieve only a document corresponding to a question and answer in a specified topic pattern.....*

Regarding claim 27, which depends on claim 19, Nolan discloses the display the author of a document at high intensity when selected by a user (fig. 9-10, and col. 11, lines 43-67)--*The apparatus.... device displays a specified author at a high intensity level based on a history of input opinions....*

Regarding claim 28, which depends on claim 19, Nolan discloses the display of a group of bulletin board documents where the documents contributed earlier are referenced to by documents published later (fig. 9-10, and col. 11, lines 43-67)-- *said view generation device displays as a directed graph an author of each document.*

Claims 29-30 are directed towards a method of displaying a relevant document for implementing the apparatus found in claim 19, and therefore are similarly rejected.

Claim 31 is directed towards a computer-readable storage medium for storing the apparatus found in claim 19, and is similarly rejected.

Response to Arguments

7. Applicant's arguments filed 5/15/02 have been fully considered but they are not persuasive. The Applicants remark that neither Nolan, nor Bailey teach a keyword contained in a document (p.3,L.3-27). The Examiner disagrees, because Nolan teaches the extraction and display of keywords contained in email documents (c.2,L.30-67, and fig.9-10).

Moreover, the Applicants remark that there is not suggestion nor teaching to combine Nolan, Knowles, or Bailey (p.4,L.8-15). The Examiner disagrees, because it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the display of a group bulletin board messages as taught by Nolan, the email content search system of Knowles, and the keyword previewing system taught by Bailey, because Bailey teaches the previewing of messages without opening them (c.2,L.44-67, and fig.3).

Moreover, the Applicants remark that the Examiner provide a rejection using the exact

claim language (p.4,L.29-30). The exact claim language has been provided in the office action dated 12/06/01, for example the words in italics are exact claim language (p.4).

Further, the Applicants remark that Knowles does not determine, for each document in the set, which of the documents is referenced (p.5,L.12-18). The Examiner disagrees, because Knowles teaches the identification or determination which document is a reference or is a reply to another message in a set of documents (c.4,L.8-c.5, L.13).

Further, the Applicants remark that Knowles does not extract attribute information (p.5,L.20-25). The Examiner disagrees, because Knowles teaches the identification or determination which document is a reference to another message by extracting attribute information, such as the subject, quoted material, etc (c.4,L.8-c.5, L.13).

Moreover, the Applicants state that the rejection does not specify where the references teach the extraction of information about classification as document group information (p.7,L.5-10). The Examiner disagrees, because Nolan discloses the extraction of information as document group information—group of email messages (c.2,L.30-67, and fig.9-10).

Moreover, the Applicants remark that there is not suggestion nor teaching to combine Nolan, Knowles, or Bailey (p.8,L.19-20). The Examiner disagrees, because it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the display of a group bulletin board messages as taught by Nolan, the email content search system of Knowles, and the keyword previewing system taught by Bailey, because Bailey teaches achieving a significant level of email retrieval accuracy (c.3,L.60-64).

In addition, the Applicants remark that Knowles does not teach the estimation of topic patterns (p.9,L.2-4). The Examiner disagrees, Knowles teaches the determination or estimation

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various linguistic clues—topic patterns—to determine whether a message is a reply to another message (c.4,L.25-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the display of a group bulletin board messages as taught by Nolan, and the email content search system of Knowles, because a system for achieving a greater level of accuracy in the message retrieval (c.3,L.60-64).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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I. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (703) 306-5543. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (703) 308-5186. However, in such a case, please allow at least one business day.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this Action should be mailed to:

Director United States Patent and Trademark Office

Washington, D.C. 20231

Or faxed to:

- (703) 746-7238, (for **After Final** communications intended for entry)
- (703) 746-7239, (for **Formal** communications intended for entry, **except formal After Final communications**)

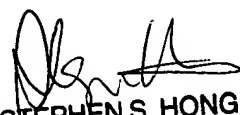
Or:

- (703) 746-7240, (for **Informal or Draft** communications for discussion only, please label **"PROPOSED"** or **"DRAFT"**).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

CBP

7/25/02


STEPHEN S. HONG
PRIMARY EXAMINER